

AMENDMENTS

In the Specification

Please replace the paragraph beginning on page 6, line 18 with the following amended paragraph:

FIG. 4A shows the sensor chip divided into three regions, each equipped with one size of microlenses based on the distance of the region and the chip center in accordance with an embodiment of the present invention.

FIG. 4B shows a modified size arrangement of the microlenses 21 in the regions, A₁, A₂ and A₃ shown in Fig. 4A.

Please replace the paragraph beginning on page 7, line 18 with the following amended paragraph:

Progressively increasing the size of the microlenses from the chip center to a chip edge balances the brightness in different regions of the chip. In practice, changing the size of each microlens is not easy. Therefore, the chip maybe divided to several regions, each region having the same size of microlenses, wherein the sizes in different region are based on the distance between the region and the chip center. For example, the chip 100, as shown in FIG. 4A, has a chip center C, and is divided into three regions. The region A₁ is a round area from the chip center C to the radius r₁, the region A₂ is an annular area encircling the region A₁ from the radius r₁ to the radius r₂, and the region A₃ is a ringlike region encircling the region A₂ from the radius r₂ to the edge of the chip 100. The microlenses disposed in the region A₁, A₂ and A₃ have a constant size S₁, S₂ and S₃ respectively, wherein S₁<S₂<S₃. The photoenergy received by the sensing areas of the center region A₁ and the edge region A₃ are almost uniform resulting, in the balance of the brightness in different regions.

At page 8, line 17, immediately preceding the subheading entitled "Second embodiment," please insert the following:

FIG. 4B shows a typical size arrangement (lower portion of the figure, B) and the modified size arrangement of the present invention (upper portion of the figure, A) of the microlenses 21 in the regions, A₁, A₂ and A₃ shown in Fig. 4A. The microlenses 21 are shown as simple rectangular shapes. 24 represents a plurality of color filter units which constitute a color filter array of a color filter layer. 29 represents an IC staked layer.

As shown in FIG. 4B, the size S₃ of microlenses 21 in the region A₃ of the present invention are kept in the same size S₃ as those in the typical size arrangement B.

In the region A₂, the size of the microlenses 21 is reduced to S₂. In the region A₁, the size of the microlenses 21 is further reduced to S₁. The size S₁ of the microlenses 21 in the region A₁ is preferably reduced by 5-50% compared with the size S₃ of microlenses 21 in the region A₃. The size S₁ of the microlenses 21 in the region A₁ is more preferably reduced by about 20% compared with the size S₃ of microlenses 21 in the region A₃.